

CUSTOMER NO.: 24498
Serial No. 10/789,425
Reply to Office Action dated: 7/30/07
Response dated: 11/20/07

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REMARKS

In the Office Action, the Examiner stated that claims 1-28 are pending in the application and that claims 1-28 stand rejected. Claims 1, 3, 5, 7, 8, 10, 12, 14, 16, 18, 21, 22, 24, 25 and 28 have been amended by this response to more clearly define the invention of the Applicant and to correct for formality errors and not in response to prior art.

In view of the amendments presented above and the following discussion, the Applicant respectfully submits that none of these claims now pending in the application are anticipated under the provisions of 35 U.S.C. § 102 or rendered obvious under the provisions of 35 U.S.C. § 103. Thus, the Applicant believes that all of these claims are now in allowable form.

Objections

The Examiner objected to the Applicant's Claims 5, 10, 16, 21, 24 and 28 as reciting "a second amplifier having an input and an output" and then further reciting "the first amplifier input coupled to the filter output" and that these limitations do not flow with each other.

In response, the Applicant has amended the Applicant's claims 5, 10, 16, 21, 24 and 28 to recite "the **second** amplifier input coupled to the filter output" as suggested by the Examiner. Having done so, the Applicant submits that the basis for the Examiner's objection to the Applicant's claims 5, 10, 16, 21, 24 and 28 has been removed and requests that the Examiner's objection to the Applicant's claims 5, 10, 16, 21, 24 and 28 be withdrawn.

Rejections

A. 35 U.S.C. § 102

The Examiner rejected the Applicant's claims 1 and 18 under 35 U.S.C. § 102(b) as being anticipated by AAPA (FIG. 1, paragraphs 002-006). The rejection is respectfully traversed.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1983)) (emphasis added).

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The Applicant submits that the AAPA fails to teach, suggest or disclose each and every element of at least the invention as recited in the Applicant's amended claim 1, which specifically recites:

"A speaker system providing enhanced intelligibility of a reproduced audio program signal in the presence of ambient noise, comprising:
means for receiving the reproduced audio program signal;
a microphone for monitoring at least ambient noise signals and for providing a microphone output signal;
means for enabling the microphone output signal during first increments of time when the reproduced audio program signal is substantially off, and disabling the microphone output signal during second increments of time when the reproduced audio program signal is on, such that the microphone output signal includes ambient noise signal components without including reproduced audio program signal components; and
a signal processor, in communication with the means for receiving and the means for enabling/disabling for applying a first transfer function to the reproduced audio program signal, the first transfer function **incrementally increasing** gain adjustments to the reproduced audio program signal as a function of an increasing amplitude of the microphone output signal, and **incrementally decreasing** gain adjustments to the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal." (emphasis added).

In support of at least the Applicant's claim 1, the Applicant, in the Specification, initially discusses the deficiencies of the prior art. More specifically, the Applicant in the Specification, specifically recites:

"Such conventional speaker systems provide amplitude compensation linearly and directly as a function of the changing ambient noise. This linear compensation is a transfer function f_1 , expressed by the equation $f_1(S_{an}) = (S_{in} \times S_{an})$, where S_{in} is the program input signal amplitude and S_{an} is the ambient noise signal amplitude. However, the above linear transfer function is non-optimal for at least retail store and other commercial environments, which commonly exhibit frequent and widely varying changes in ambient noise, since the conventionally compensated speaker output signal provides commensurately frequent and widely varying changes in sound levels that can be annoying to listeners. Thus, what is needed is a speaker system providing direct, but incremental, amplitude compensation as a function of f_1 of such frequent and widely varying changes in ambient noise." (See Specification, para. 0006).

As clearly evident from at least the portion of the Applicant's Specification presented above, the Applicant's invention is directed, at least in part, to

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addressing the deficiencies of the prior art linear transfer functions that provide commensurately frequent and widely varying changes in sound levels that can be annoying to listeners. The Applicant teaches that various embodiments of the Applicant's invention are directed to providing a method and speaker system providing direct, but **incremental**, amplitude compensation for addressing the deficiencies of the prior art.

In support of at least the Applicant's claim 1, the Applicant in the Specification further recites:

"An embodiment of the present invention is a commercial speaker system that receives an input audio program signal. The input audio program signal can be from any source, such as a CD, DVD, MPEG, tape, live broadcast, etc., and can consist a mono-signal or of summed left and right stereo signals. The speaker system of this embodiment can comprise a signal process and transfer function for enhancing the intelligibility of the reproduced program signal in the presence of widely varying ambient noise levels over discrete time increments. Such a transfer function can incrementally vary the volume of the reproduced sound, for example in steps of about 1 dB to about 10 dB, directly as a function of the volume of ambient noise, whereby such incremental variations ensure that the volume of the reproduced sound does not change too frequently as a consequence of rapidly occurring changes in the ambient noise." (See Specification, para. 00016).

And

"As shown in FIG. 2, the program input signal S_{in} is applied to signal input s of signal process P_2 . P_2 output port o provides signal process output signal S_5 . P_2 introduces transfer function f_2 providing incrementally increasing gain, for example, in steps of about 1 dB to about 10 dB, to S_{in} as a function of increasing amplitude of a signal process control signal, and vice versa, described below. This transfer function f_2 can, for example, be a non-linear equation of the form $f_2(S_{an}) = (S_{in} \times S_{an})$, where S_{an} is the ambient noise signal amplitude in increments of, for example, about 1 dB to about 10 dB. (See Specification, para. 00018).

As clearly evident from at least the portions of the Applicant's Specification presented above, in the invention of the Applicant, gain is provided incrementally as function of increasing amplitude of a signal process control signal and not linearly as taught in the prior art. That is, the Applicant's teach that, in accordance with the present invention, a transfer function can incrementally vary the volume of the reproduced sound incrementally as a function of the volume of ambient noise, whereby such incremental variations ensure that the volume of the reproduced sound does not change too frequently as a consequence of rapidly occurring changes in the ambient noise.

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In contrast to the invention of the Applicant, the AAPA cited by the Applicant teaches providing amplitude compensation linearly and directly as a function of the changing ambient noise, which commonly exhibit frequent and widely varying changes in ambient noise, since the conventionally compensated speaker output signal provides commensurately frequent and widely varying changes in sound levels that can be annoying to listeners. That is, the Applicant submits that there is absolutely no teaching, suggestion or disclosure in the AAPA for at least "the first transfer function **incrementally increasing** gain adjustments to the reproduced audio program signal as a function of an increasing amplitude of the microphone output signal, and **incrementally decreasing** gain adjustments to the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal" as taught in the Applicant's Specification and as claimed by at least the Applicant's claim 1.

Therefore, the Applicant submits that, for at least the reasons recited above, the AAPA fails to teach each and every element of the claimed invention, arranged as in the claim as required for anticipation. As such, the Applicant respectfully submits that the Applicant's claim 1 fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

Likewise, the Applicant's independent claim 18 recites similar relevant features as the Applicant's amended claim 1. Therefore, the Applicant submits that at least for the reasons recited above with respect to independent claim 1, the Applicant's claim 18 is also not anticipated by the teachings of the AAPA and as such fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

B. 35 U.S.C. § 103

The Examiner rejected the Applicant's claims 2 and 19 under 35 U.S.C. § 103(a) as being unpatentable over the AAPA. The rejection is respectfully traversed.

The Examiner applied the AAPA for the rejection of claim 2 and 19 as applied above for the rejection of the Applicant's claims 1 and 18. As described above and for at least the reasons described above, the Applicant respectfully

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submits that the AAPA absolutely fails to teach, suggest or make obvious at least the Applicant's claims 1 and 18. The Applicant further submits that at least because the AAPA absolutely fails to teach, suggest or make obvious at least the Applicant's claims 1 and 18, the AAPA also fails to teach, suggest or make obvious at least the Applicant's claims 2 and 19, which depend directly from the Applicant's claims 1 and 18.

Therefore, the Applicant submits that, for at least the reasons recited above, the AAPA fails to teach each and every element of the claimed invention, arranged as in the Applicant's claims and fails to make obvious the invention of the Applicant's claims 1 and 18. That is, the Applicant submits that at least because the AAPA fails to teach, suggest or render obvious the Applicant's claims 1 and 18, the AAPA also fails to teach, suggest or render obvious the Applicant's claims 2 and 19, which depend directly from the Applicant's claims 1 and 18. As such, the Applicant respectfully submits that the Applicant's claims 2 and 19 fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

C. 35 U.S.C. § 103

The Examiner rejected the Applicant's claims 3, 5, 20 and 21 under 35 U.S.C. § 103(a) as being unpatentable over the AAPA as applied to claim 1 and further in view of Bosnak (U.S. Patent No. 4,554,533). The rejection is respectfully traversed.

The Examiner applied the AAPA for the rejection of claim 3, 5, 20 and 21 as applied above for the rejection of the Applicant's claims 1 and 18. As described above and for at least the reasons described above, the Applicant respectfully submits that the AAPA absolutely fails to teach, suggest or make obvious at least the Applicant's claims 1 and 18. The Applicant further submits that at least because the AAPA absolutely fails to teach, suggest or make obvious at least the Applicant's claims 1 and 18, the AAPA also fails to teach, suggest or make obvious at least the Applicant's claims 3, 5, 20 and 21, which depend either directly or indirectly from the Applicant's claims 1 and 18.

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The Applicant further submits that the teachings of Bosnak absolutely fail to bridge the substantial gap between the AAPA and the invention of the Applicant. More specifically, Bosnak teaches a method of and apparatus for the testing of warning systems. In Bosnak, the operational status of a remotely controlled electronic siren is periodically tested, from a command post, without producing audible sound. The test procedure includes energizing the voice coils of the siren loudspeakers with a signal outside of the audible range, sensing whether current flows in the speaker voice coil circuits and storing the results of the test. The stored information, upon request, will be transmitted back to the command post. (See Bosnak, Abstract). However, the Applicant respectfully submits that there is absolutely no teaching or suggestion in Bosnak for a method and speaker system including at least "the first transfer function **incrementally increasing** gain adjustments to the reproduced audio program signal as a function of an increasing amplitude of the microphone output signal, and **incrementally decreasing** gain adjustments to the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal" as taught in the Applicant's Specification and as claimed by at least the Applicant's claim 1.

In fact, the Examiner only cites Bosnak for teaching a first amplifier having an input and an output, the first amplifier input coupled to the signal process output signal of the signal process and the first amplifier output coupled to a first speaker input of a first speaker.

The Applicant further submits that there is absolutely no motivation for the combination of the AAPA and Bosnak and that the AAPA and Bosnak are in two totally unrelated fields and teach two totally unrelated solutions to two totally unrelated problems.

Therefore, the Applicant submits that, for at least the reasons recited above, the AAPA and Bosnak, alone or in any allowable combination, absolutely fail to teach, suggest or render obvious at least the Applicant's claims 1 and 18. As such, the Applicant submits that at least because the AAPA and Bosnak, alone or in any allowable combination, fail to teach, suggest or render obvious the Applicant's claims 1 and 18, the AAPA and Bosnak, alone or in any allowable combination, also fail to teach, suggest or render obvious the Applicant's claims 3, 5, 20 and 21, which depend either directly or indirectly from the Applicant's claims

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1 and 18. As such, the Applicant respectfully submits that the Applicant's claims 3, 5, 20 and 21 fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

D. 35 U.S.C. § 103

The Examiner rejected the Applicant's claims 4 and 6 under 35 U.S.C. § 103(a) as being unpatentable over the AAPA and Bosnak as applied to claim 3 and in further view of Tanaka et al. (U.S. Patent No. 5,588,065, hereinafter "Tanaka"). The rejection is respectfully traversed.

The Examiner applied the AAPA and Bosnak for the rejection of claims 4 and 6 as applied above for the rejection of the Applicant's claim 3. As described above and for at least the reasons described above, the Applicant respectfully submits that the AAPA and Bosnak, alone or in any allowable combination, absolutely fail to teach, suggest or make obvious at least the Applicant's claim 3. The Applicant further submits that at least because the AAPA and Bosnak, alone or in any allowable combination, absolutely fail to teach, suggest or make obvious at least the Applicant's claim 3, the AAPA and Bosnak also fail to teach, suggest or make obvious at least the Applicant's claims 4 and 6, which depend either directly or indirectly from the Applicant's claim 3.

The Applicant further submits that the teachings of Tanaka absolutely fail to bridge the substantial gap between the teachings of the AAPA and Bosnak and the invention of the Applicant. More specifically, Tanaka teaches a bass reproduction speaker apparatus. In Bosnak, a bass reproduction speaker apparatus includes: a cabinet with an opening, having a division member inside thereof; a speaker unit disposed at the division member; a passive radiator disposed in the opening; an amplifier for driving the speaker unit; a detector for detecting a vibration of a moving system of the speaker unit; and a feedback circuit for feeding back an output signal from the detector to the amplifier. (See Tanaka, Abstract). However, the Applicant respectfully submits that there is absolutely no teaching or suggestion in Tanaka for a method and speaker system including at least "the first transfer function incrementally increasing gain adjustments to the reproduced

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audio program signal as a function of an increasing amplitude of the microphone output signal, and **Incrementally decreasing** gain adjustments to the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal" as taught in the Applicant's Specification and as claimed by at least the Applicant's claim 1. In fact, the Examiner only cites Tanaka for teaching a speaker having a single speaker driver having a diaphragm diameter not greater than about 100 centimeters.

The Applicant further submits that there is absolutely no motivation for the combination of the AAPA, Bosnak and Tanaka and that the AAPA, Bosnak and Tanaka are in three totally unrelated fields and teach three totally unrelated solutions to three totally unrelated problems.

Therefore, the Applicant submits that, for at least the reasons recited above, the AAPA, Bosnak and Tanaka, alone or in any allowable combination, absolutely fail to teach, suggest or render obvious at least the Applicant's claims 1 and 3: As such, the Applicant submits that at least because the AAPA, Bosnak and Tanaka, alone or in any allowable combination, fail to teach, suggest or render obvious the Applicant's claims 1 and 3, the AAPA, Bosnak and Tanaka, alone or in any allowable combination, also fail to teach, suggest or render obvious the Applicant's claims 4 and 6, which depend either directly or indirectly from the Applicant's claims 1 and 3. As such, the Applicant respectfully submits that the Applicant's claims 4 and 6 fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

E. 35 U.S.C. § 103

The Examiner rejected the Applicant's claims 7, 12-13, 22, and 25-26 under 35 U.S.C. § 103(a) as being unpatentable over the AAPA in view of Aylward et al. (U.S. Patent Pub. 2004/0105559, hereinafter "Aylward"). The rejection is respectfully traversed.

The Applicant submits that the AAPA and Aylward, alone or in any allowable combination, fail to teach, suggest or render obvious each and every

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element of at least the invention as recited in the Applicant's claim 7, which specifically recites:

"A speaker system providing enhanced intelligibility of a reproduced audio program signal in the presence of ambient noise comprising:
means for receiving the reproduced audio program signal;
a microphone for monitoring ambient noise signals and for providing a microphone output signal;
means for enabling the microphone output signal during first increments of time when the reproduced audio program signal is substantially off, and disabling the microphone output signal during second increments of time when the reproduced audio program signal is on, such that the microphone output signal includes ambient noise signal components without including reproduced program signal components; and
a signal processor, in communication with the means for receiving and the means for enabling/disabling, for applying a second transfer function to the reproduced audio program signal, the transfer function **providing increasing high frequency response of the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal, and vice versa**, wherein the signal process output signal is maintained during such times as the microphone output signal is disabled." (emphasis added).

In support of at least the Applicant's claim 7, the Applicant, in the Specification, specifically recites:

"As shown in FIG. 3, the program input signal S_{in} is applied to signal input s of signal process P_3 . P_3 output port o provides signal process output signal S_7 . P_3 introduces transfer function f_3 providing increasing high frequency response to S_{in} as a function of increasing amplitude of a signal process control signal, and vice versa, described below. This transfer function f_3 can, for example, be a non-linear equation of the form $f_3(S_{an})=(S_{inHF}/S_{an})$, where S_{inHF} is the high frequency response signal." (See Specification, para. 0020).

And

"The signal process P_3 of FIG. 3 is maintained between such times as the microphone output signal is enabled (that is, switched through to the control input of the signal process) to provide continuing sound reproduction using the previously determined ambient noise level or average of levels. Signal process output signal S_7 is applied to first amplifier $A1$ having output signal S_{out4} applied to first speaker $SPK1$. Where low frequency performance enhancement is also desired, S_7 is optionally applied to low-pass filter $F1$ having filtered output signal S_8 , which is applied to second amplifier $A2$ having output signal S_{out5} applied to second speaker $SPK2$. According to one aspect of this embodiment, the cut-off frequency of low-pass filter $F1$ might be approximately 400 Hz. However, a range of between about 100 Hz to about 600 Hz or more can also be effective for the present

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invention. In this manner, the output of the signal process is amplified by a first amplifier and optionally a second amplifier, the outputs of which are applied to the speakers. The speakers can be, for example, comprise a single speaker driver having a diaphragm diameter not greater than substantially 100 centimeters (cm) and producing a wide-dispersion sound field." (See Specification, para. 0021).

As clearly evident from at least the portion of the Applicant's Specification presented above, in the Applicant's invention, at least with regards to independent claim 7, a transfer function **provides increasing high frequency response of the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal, and vice versa**. The Applicant submits that there is absolutely no teaching, suggestion or disclosure by the AAPA for such teachings of the Applicant's invention. More specifically, the Examiner cites the AAPA of the Applicant's paragraph 0006 in the Applicant's Specification for teaching "the transfer function **providing Increasing high frequency response of the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal, and vice versa**" as claimed by at least the Applicant's claim 7. The Applicant respectfully disagrees. In fact, in paragraph 0006, the Applicant specifically recites:

"Such conventional speaker systems provide amplitude **compensation** linearly and directly as a function of the changing ambient noise. This linear **compensation** is a transfer function $f_{sub.1}$ expressed by the equation $f_1(S_{an}) = (S_{in} \times S_{an})$, where S_{in} is the program input signal amplitude and S_{an} is the ambient noise signal amplitude. However, the above linear transfer function is non-optimal for at least retail store and other commercial environments, which commonly exhibit frequent and widely varying changes in ambient noise, since the conventionally compensated speaker output signal provides commensurately frequent and widely varying changes in sound levels that can be annoying to listeners. Thus, what is needed is a speaker system providing direct, but incremental, amplitude **compensation** as a function f_1 of such frequent and widely varying changes in ambient noise."

As clearly evident from at least the portions of the Applicant's Specification presented above and as pointed out by the Examiner, there is absolutely no teaching or suggestion in the AAPA for at least "the transfer function **providing increasing high frequency response of the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal, and vice versa**" as claimed by at least the Applicant's claim 7.

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The Applicant further submits that the teachings of Aylward absolutely fail to bridge the substantial gap between the teachings of the AAPA and the invention of the Applicant at least with regards to the Applicant's claim 7. More specifically, Aylward teaches electroacoustical transducing with low frequency augmenting devices. In Aylward, a method for processing a multichannel audio signal includes mounting electroacoustical transducers in a low frequency augmenting device. The electroacoustical transducers radiate different high frequency acoustic energy and common low frequency acoustic energy. The transducers may be part of directional arrays. The method is applied to multimedia entertainment devices. (See Aylward, Abstract). However, the Applicant submits that there is absolutely no teaching or suggestion in Aylward for at least the transfer function **providing increasing high frequency response of the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal, and vice versa** as claimed by at least the Applicant's 7. In fact, the Examiner only cites Aylward for teaching that the transfer function is a second transfer function.

The Applicant further submits that there is absolutely no motivation for the combination of the AAPA and Aylward and that the AAPA and Aylward are in two totally unrelated fields and teach two totally unrelated solutions to two totally unrelated problems.

Therefore, the Applicant submits that, for at least the reasons recited above, the AAPA and Aylward, alone or in any allowable combination, absolutely fail to teach, suggest or render obvious at least the Applicant's claim 7. As such, the Applicant respectfully submits that the Applicant's claim 7 fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Likewise, the Applicant's independent claims 12, 22 and 25 recite similar relevant features as the Applicant's claim 7. Therefore, the Applicant submits that at least for the reasons recited above with respect to independent claim 7, the Applicant's claims 12, 22 and 25 are also not rendered obvious by the teachings of the AAPA and Aylward, alone or in any allowable combination, and as such fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

Furthermore, dependent claims 13 and 26 depend directly from independent claims 12 and 25 and recite additional features therefor. As such and for at least the reasons set forth herein, the Applicant submits that dependent

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claims 13 and 26 are also not rendered obvious by the AAPA and Aylward, alone or in any allowable combination. Therefore the Applicant submits that dependent claims 13 and 26 also fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

F. 35 U.S.C. § 103

The Examiner rejected the Applicant's claims 8, 10, 14, 16, 23-24 and 27-28 under 35 U.S.C. § 103(a) as being unpatentable over the AAPA and Aylward as applied to claim 7 and further in view of Bosnak. The rejection is respectfully traversed.

The Examiner applied the AAPA and Aylward for the rejection of claim 8, 10, 14, 16, 23-24 and 27-28 as applied above for the rejection of the Applicant's claims 7, 12 and 25. As described above and for at least the reasons described above, the Applicant respectfully submits that the AAPA and Aylward, alone or in any allowable combination, absolutely fail to teach, suggest or make obvious at least the Applicant's claims 7, 12, 22 and 25. The Applicant further submits that at least because the AAPA and Aylward absolutely fails to teach, suggest or make obvious at least the Applicant's claims 7, 12, 22 and 25, the AAPA and Aylward, alone or in any allowable combination, also fail to teach, suggest or make obvious at least the Applicant's claims 8, 10, 14, 16, 23-24 and 27-28, which depend either directly or indirectly from the Applicant's claims 7, 12, 22 and 25.

The Applicant further submits that the teachings of Bosnak absolutely fail to bridge the substantial gap between the AAPA and the invention of the Applicant. More specifically, Bosnak teaches a method of and apparatus for the testing of warning systems. In Bosnak, the operational status of a remotely controlled electronic siren is periodically tested, from a command post, without producing audible sound. The test procedure includes energizing the voice coils of the siren loudspeakers with a signal outside of the audible range, sensing whether current flows in the speaker voice coil circuits and storing the results of the test. The stored information, upon request, will be transmitted back to the command post. (See Bosnak, Abstract). However, the Applicant respectfully submits that there is absolutely no teaching or suggestion in Bosnak for a method and speaker system

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including at least "the transfer function providing increasing high frequency response of the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal, and vice versa" as claimed by at least the Applicant's claims 7, 12, 22 and 25.

In fact, the Examiner only cites Bosnak for teaching a first amplifier having an input and an output, the first amplifier input coupled to the signal process output signal of the signal process and the first amplifier output coupled to a first speaker input of a first speaker.

The Applicant further submits that there is absolutely no motivation for the combination of the AAPA, Aylward and Bosnak and that the AAPA, Aylward and Bosnak are in three totally unrelated fields and teach three totally unrelated solutions to three totally unrelated problems.

Therefore, the Applicant submits that, for at least the reasons recited above, the AAPA, Aylward and Bosnak, alone or in any allowable combination, absolutely fail to teach, suggest or render obvious at least the Applicant's claims 7, 12, 22 and 25. As such, the Applicant submits that at least because the AAPA, Aylward and Bosnak, alone or in any allowable combination, fail to teach, suggest or render obvious the Applicant's claims 7, 12, 22 and 25, the AAPA, Aylward and Bosnak, alone or in any allowable combination, also fail to teach, suggest or render obvious the Applicant's claims 8, 10, 14, 16, 23-24 and 27-28, which depend either directly or indirectly from the Applicant's claims 7, 12, 22 and 25. As such, the Applicant respectfully submits that the Applicant's claims 8, 10, 14, 16, 23-24 and 27-28 fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

G. 35 U.S.C. § 103

The Examiner rejected the Applicant's claims 9, 11, 15 and 17 under 35 U.S.C. § 103(a) as being unpatentable over the AAPA, Aylward and Bosnak as applied to claims 7 and 12 and in further view of Tanaka. The rejection is respectfully traversed.

The Examiner applied the AAPA and Bosnak for the rejection of claims 9, 11, 15 and 17 as applied above for the rejection of the Applicant's claims 7 and 12. As described above and for at least the reasons described above, the Applicant

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respectfully submits that the AAPA, Aylward and Bosnak, alone or in any allowable combination, absolutely fail to teach, suggest or make obvious at least the Applicant's claims 7 and 12. The Applicant further submits that at least because the AAPA, Aylward and Bosnak, alone or in any allowable combination, absolutely fail to teach, suggest or make obvious at least the Applicant's claims 7 and 12, the AAPA, Aylward and Bosnak, alone or in any allowable combination, also fail to teach, suggest or make obvious at least the Applicant's claims 9, 11, 15 and 17, which depend either directly or indirectly from the Applicant's claims 7 and 12.

The Applicant further submits that the teachings of Tanaka absolutely fail to bridge the substantial gap between the teachings of the AAPA and Bosnak and the invention of the Applicant. More specifically, Tanaka teaches a bass reproduction speaker apparatus. In Bosnak, a bass reproduction speaker apparatus includes: a cabinet with an opening, having a division member inside thereof; a speaker unit disposed at the division member; a passive radiator disposed in the opening; an amplifier for driving the speaker unit; a detector for detecting a vibration of a moving system of the speaker unit; and a feedback circuit for feeding back an output signal from the detector to the amplifier. (See Tanaka, Abstract). However, the Applicant respectfully submits that there is absolutely no teaching or suggestion in Tanaka for a method and speaker system including at least "**the transfer function providing increasing high frequency response of the reproduced audio program signal as a function of a decreasing amplitude of the microphone output signal, and vice versa**" as claimed by at least the Applicant's claims 7 and 12. In fact, the Examiner only cites Tanaka for teaching a speaker having a single speaker driver having a diaphragm diameter not greater than about 100 centimeters.

The Applicant further submits that there is absolutely no motivation for the combination of the AAPA, Aylward, Bosnak and Tanaka and that the AAPA, Aylward, Bosnak and Tanaka are in four totally unrelated fields and teach four totally unrelated solutions to four totally unrelated problems.

Therefore, the Applicant submits that, for at least the reasons recited above, the AAPA, Aylward, Bosnak and Tanaka, alone or in any allowable combination, absolutely fail to teach, suggest or render obvious at least the Applicant's claims 7 and 12. As such, the Applicant submits that at least because the AAPA, Aylward,

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Bosnak and Tanaka, alone or in any allowable combination, fail to teach, suggest or render obvious the Applicant's claims 7 and 12, the AAPA, Aylward, Bosnak and Tanaka, alone or in any allowable combination, also fail to teach, suggest or render obvious the Applicant's claims 9, 11, 15 and 17, which depend either directly or indirectly from the Applicant's claims 7 and 12. As such, the Applicant respectfully submits that the Applicant's claims 9, 11, 15 and 17 fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

Conclusion

Thus, the Applicant submits that none of the claims, presently in the application, are anticipated under the provisions of 35 U.S.C. § 102 or rendered obvious under the provisions of 35 U.S.C. § 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion, it is respectfully requested that the Examiner telephone the undersigned.

Respectfully submitted,

Michael L. Petroff

By:


Jorge Tony Villabon, Attorney
Reg. No. 52,322
(609) 734-6445

Patent Operations
Thomson Licensing Inc.
P.O. Box 5312
Princeton, New Jersey 08543-5312

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